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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,171	03/12/2004	Raymond E. Floyd	02-007	9083
24919	7590	03/09/2006	EXAMINER TAMAI, KARL I	
MCAFEE & TAFT TENTH FLOOR, TWO LEADERSHIP SQUARE 211 NORTH ROBINSON OKLAHOMA CITY, OK 73102			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

67C

Office Action Summary	Application No.		Applicant(s)	
	10/800,171		FLOYD, RAYMOND E.	
	Examiner		Art Unit	
	Tamai I.E. Karl		2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 22-25 is/are rejected.
- 7) ☒ Claim(s) 14 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-16 in the reply filed on 12/20/2005 is acknowledged.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo et al (Matsuo) (JP 59-000582). Matsuo teaches a submergible motor having fiber optic cables extending from the surface to the motor casing 4 to transmit sensor information on temperature and water level signals. Matsuo shows the power 3 and fiber optic 11 cables extending in a single co-axial cable armor 10.

6. Claims 1, 2, 7, 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (WO00/57540). Smith teaches a submersible motor having fiber optic cables extending from the surface to the motor casing (inherently recited for sensors inside and outside the motor) to transmit information from sensors outside the motor such as a blocked pump or pump bearing wear, and sensors inside the motor, such as motor vibrations and rotor misalignment. The optical cable having a single insulating coating (armor).

7. Claims 1-4, 7, 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bearden et al. (Bearden) (US 6167965). Bearden teaches a submersible motor 17 having fiber optic cables 116 and power cables 129, 130, 131 extending from the surface to the motor casing to transmit information from the surface to the motor, such as pressure and temperature sensors within the motor 17. The submersible motor having a vibration sensor 171 below the motor 17. The motor including a stator and rotor mounted on a shaft (figure 1f). The optical cable having a single insulating coating (armor) 141.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Breit (US 6006837). Smith and Bearden both teach every aspect of the invention except the sensors below the motor. Breit teaches a downhole pump having sensors 32 mounted below the motor 28. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Smith or Bearden with sensors below the motor to sense the temperatures of the well fluids, as taught by Breit.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Davis (US 4275319). Smith and Bearden both teach every aspect of the invention except the motor having a rotor on a shaft inside the stator in the motor interior. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Smith or Bearden with rotor, stator, and shaft of Davis to provide motor which is easily connected with a protector and pump as shown by Davis.

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Inao et al. (Inao)(JP 09103049). Smith and Bearden both teach every aspect of the invention except the notch in the outer surface of the motor with the optical fibers mounted in the notch. Inao teaches a notch in the outer surface of the stator for passing the electrical cables to the control circuit below the stator. It would have been obvious to a person of ordinary skill in the art at the time

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of the invention to construct the motor of Smith or Bearden with cables in the notch of the stator, as Inao to provide power to control circuits mounted in the motor housing but below the motor.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Gardner et al. (Gardner)(US 6446723). Smith and Bearden both teach every aspect of the invention except the optical fibers being single mode fibers. Gardner teaches both single and multiple mode fiber optics for downhole sensing in wells. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Smith or Bearden with single mode optical fibers because it is within the ordinary skill in the art to choose between known equivalents and because Gardner teaches both single and multiple mode fibers are used in downhole sensing.

13. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Kashiyama (JP 09-270209). Smith and Bearden teach every aspect of the invention except first armor for the electrical conductors and a second armor for the optical fibers. Kashiyama teaches a submersible pump having first armor 10 for the conductors and a second armor 12 of the fiber optics. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Smith or Bearden with cable of Kashiyama to prevent damage to the electrical and optical cables.

14. Claims 12, 13, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith or Bearden, in further view of Jung (US 5714811). Smith and Bearden teach every aspect of the invention splice for connecting the motor casing optical fiber to motor lead cable assembly. Jung teaches a motor with internal and external fiber optic cables which are splice by connector 7. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Smith or Bearden with a splice connection to provide a safe and reliable connection to the motor as taught by Jung.

Allowable Subject Matter

15. Claims 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (571) 273 - 8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
March 5, 2006



6167965 6006837 4275319 6446723 5714811

KARL TAMAI
PRIMARY EXAMINER